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AUTHORITY

AGO ltr, 29 Apr 1980

DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

IN REPLY REFER TO

DAAG-PAP-A (M) (9 Dec 71) DAFD-OTT 28 December 1971

SUBJECT: Operational Reports - Lessons Learned, 160th Sig Gp, 1st Sig Bde, and 40th Signal Bn - for Period Ending 30 April 1971

SEE DISTRIBUTION

1. Section 2 of reports, subject as above, are forwarded for review and evaluation in accordance with para 4b, AR 525-15.

2. The information contained in these reports is provided to insure that lessons learned during current operations are used to the benefit of future operations and may be adapted for use in developing training material.

3. Information of actions initiated as a result of your evaluation should be forwarded to the Assistant Chief of Staff for Force Development, ATTN: DAFD-OTT, within 90 days of receipt of this letter.

4. As Section 1 of the report is not pertinent to the Lessons Learned program, it has been omitted.

BY ORDER OF THE SECRETARY OF THE ARMY.

VERNE L. BOWERS
Major General, USA
The Adjutant General

3 Incl
1. DAFD-OTT 711185
2. DAFD-OTT 711132
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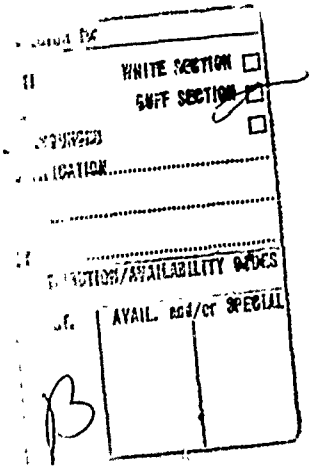

SCCFV-UG-OP-PT 16 May 1971
SUBJECT: Operational Report - Lessons Learned 160th Signal Group Period ending 30 April 1971, RCS-CSFOR - 65 (R3).

2. Lessons Learned: Commanders Observations, Evaluations and Recommendations.

a. Personnel:

(1) CLSC-V:

(a) OBSERVATION: Many COMSEC Equipment Repairmen (MOS 31S20) are used in other than their Primary MOS.

(b) EVALUATION: This is frequently necessary in COMSEC Logistics Support Facilities due to shortages in other essential MOS's. It is frequently requested by the EM themselves in order to better their advancement opportunties, since the MOS is limited to the grade of E-4, unless a further formal course of instruction is taken (23 weeks estimated minimum).

(c) RECOMMENDATION: That the Department of the Army grade authorization be reviewed for MOS 31S20 to enable supervisory personnel to obtain grade of E-5, or that the training requirements be modified to permit advancement into the higher skill (31S30) upon demonstration of full capabilities to a qualified Senior NCO (31U40), or a Warrant Officer (341A0).

(d) COMMAND ACTION: The matter has been documented and placed in the Inspector - General channels with USASTRATCOM.

b. Intelligence: None.

c. Operations:

(1) SEAPC:

(a) OBSERVATION: The five ton water chiller presently employed within the photograph vans (Kellet Aircraft Shelters) can not provide adequate cooling when subjected to Vietnams hot climate.

(b) EVALUATION: Shielding the vans from direct sunlight and insulating the exterior pipes have helped the water temperature.

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(c) RECOMMENDATION: The vans be outfitted with internal cooling units of increased capacity.

(d) COMMAND ACTION: Local vans have been shielded and insulated.

(2) CLSC-V:

(a) OBSERVATION: With rapid personnel turn over in RVN, awareness of the efficacy of the voice security program in tactical operations quickly deteriorates.

(b) EVALUATION: Personnel are afraid of the "Crypto" related aspects of the voice security program and the associated equipment will limit transmission range.

(c) RECOMMENDATION: That Command emphasis be strengthened in using organizations possessing NESTOR equipment.

(d) COMMAND ACTION: The CLSC-V will continue to present NESTOR Briefings to demonstrate the effectiveness and capabilities of tactical voice security equipment.

(e) OBSERVATION: Many elements fail to include the local COMSEC Logistics Support Facility in operational planning.

(f) EVALUATION: The absence of forewarning or knowledge of operations frequently results in crash actions taken by the COMSEC Logistics Support Facility to provide the necessary support.

(g) RECOMMENDATION: That all Commands be made fully aware of the time consuming factors in providing COMSEC Support and include coordination with local CLSF's in the developement of all operations orders/plans.

(h) COMMAND ACTION: This matter has been brought to the attention of local command authorities and emphasis placed on there aspects through local commanders notes.

d. Organization: None.

c. Training:

(1) Cocaine:

(a) OBSERVATION: Feedback from the 160th Signal Group's drug program indicates that many men are under the assumption they are purchasing cocaine, and not heroin, when they are actually purchasing heroin.

(b) EVALUATION: Cocaine can rarely be purchased in Vietnam as it is grown in South America.

(c) RECOMMENDATION: Drug Training should be given in Basic and Special emphasis should be placed on heroin. Personnel should be made aware there is no cocaine available in Vietnam.

(d) COMMAND ACTION: Unit CI classes and initial incountry briefings now stress pertinent drug information.

(2) NCO Training:

(a) OBSERVATION: Most NCO's and officers have too little knowledge of drugs to even begin to handle the problem, as evidenced in recent drug conferences and shakedowns.

(b) EVALUATION: A man who is unaware of how to recognize heroin, the characteristics of an addict, or proper siezure procedures is not going to be very effective in handling a drug problem within the unit.

(c) RECOMMENDATION: To initiate effective drug training classes for senior NCO's and officers at appropriate CONUS schools.

(d) COMMAND ACTION: Drug classes for senior NCO's and officers within the unit have been initiated.

(3) MOS 72B (Communications Center Specialist)

(a) OBSERVATION: Enlisted personnel trained in the 72B MOS do not receive sufficient COMSEC Material Accounting Training.

(b) EVALUATION: Extensive Mission Essential Training must be given to each new 72B upon assignment to COMSEC Logistics Support Centers.

(c) RECOMMENDATION: A separate MOS or, at least, a separate ASI for MOS 72B be authorized for COMSEC Material Accounting Specialists.

(d) COMMAND ACTION: None possible, except continued emphasis on local unit mission essential training.

(4) MOS 84G20 (Photographic Laboratory Technician)

(a) OBSERVATION: Newly assigned 84G20 personnel do not receive adequate training in color printing.

(b) EVALUATION: Extensive OJT training plus RVN's short tour limit the amount of time a man can be utilized to perform his mission.

(c) RECOMMENDATION: Selected personnel in this MOS area be further trained through advanced military or civilian affiliated training. Once he is trained, he be identified by an MOS suffix assigned to units which have color printing capability.

(d) COMMAND ACTION: None possible, except continued emphasis on local missions essential training.

f. Logistics:

(1) DSU Support in the Saigon area.

(a) OBSERVATION: The experience with the DSU support in the Saigon area has been less than satisfactory, during the third (3rd) quarter FY 71.

(b) EVALUATION: Twice during the third quarter the DSU supporting engineer items was changed. Each time all unit requisitions were cancelled. The resulting degradation of the Group's PLL posture was significant. Had the outstanding unit requisitions been transferred from the closing DSU to the gaining DSU, PLL fill would not have taken such a serious drop.

(c) RECOMMENDATION: In the future when changes in the DSU's become necessary a cut off date be established. The cut off date should be well in advance of the actual closing of the DSU. After this date, units would requisition on the new DSU. Upon the final close out of the old DSU all outstanding requisitions should be transferred to the gaining DSU but not cancelled.

(d) COMMAND ACTION: None possible, except to initiate new requisitions as quickly as possible.

(2) CLSC-V Authorized Stockage Lists:

(a) OBSERVATION: Current Organizational Directives from higher Headquarters prescribe the presence of an ASL within each COMSEC Logistics Support Facility.

(b) EVALUATION: Adherence to the above requires separate activity address Codes and UIC's and is inherently impossible in situations where a major COMSEC Logistics Support Facility, with many subordinate COMSEC Logistics Support Facilities, each of which is considered a COMSEC Logistics Support Facility in itself, is constituted under a single TDA type organization.

(c) RECOMMENDATION: That further definition be provided in organizational directives as to at what level the ASL is to be maintained, especially where organic, subordinate COMSEC Logistics Support Facilities are included under the same UIC.

(d) COMMAND ACTION: This matter has been resolved in this Command by directing that the ASL will be maintained with the Stock Control Branch at Center HQ only. Those stocks within subordinate COMSEC Logistics Support Units, formerly titled ASL's have been redesignated and are now considered Service Stocks, thereby greatly simplifying records keeping and providing for only informal accountability at that level, with formal accountability maintained only within the Center HQ itself.

g. Communication:

(1) DTE Maintenance:

(a) OBSERVATION: After an electrical storm, repairmen should look at the equipment that is designated to protect the DTE as an initial step in bringing the system back to service.

(b) EVALUATION: During an electrical storm the LBN DTE was partially impaired for approximately 55 minutes. 80% of the subscribers could not make outgoing calls. Lightning struck, the lights went out and linefinders started chaining. Contractor personnel started to pull heat coils out on a cable that had been knocked down by the storm and when that did not stop the linefinders from chaining, the main circuits breakers for all linefinders bays were turned off. When the lights came back on approximately an hour later it was noticed that the first selector bay main circuit breaker was tripped. This circuit breaker was reset first, then the linefinders circuit breakers next and all chaining action stopped and the DTE was back in service.

When the first selector circuit breaker was tripped during the storm all calls in process were released. The chaining of linefinders was due to the fact that a selector could not be seized by the linefinders, therefore the linefinder kept searching for an idle trunk. When the 1st selector circuit breaker was re-set, linefinders found idle selector and all chaining action stopped.

(c) RECOMMENDATION: This incident be made available to all DTE maintenance personnel.

(d) COMMAND ACTION: Personnel within the command have been instructed on what to look for after a power outage caused by lightning.

(2) SYSCON Reord Keeping:

(a) OBSERVATION: The use of individual circuit cards for all circuits on file on a SYSCON workbench, facilitates more rapid and efficient circuit restoral and information availability.

(b) EVALUATION:

(1) The previous method for logging out circuits and keeping records of circuit outages involved:

(a) Taking down the CCSD of the circuit, time out, and initial RFO from the person logging the circuit out to SYSCON.

(b) Pulling the circuit folder from a filing cabinet and copying circuit information onto the trouble ticket from the informationcontained in the circuit folder.

(c) Logging the circuit out on a master log kept on a daily basis.

(d) Placing the circuit folder in a suspense box until the circuit has come back to traffic.

(e) When the circuit was brought back to traffic the time in, the time out, and final RFO were logged in on the circuit history log kept in the circuit folder.

(f) The circuit folder was then placed in a back to traffic box kept on the SYSCON workbench, to be filed back in the filing cabinet at the end of the work day.

(g) Trouble tickets for the previous 90 days were maintained in each individual circuit folder, and had to be removed periodically, and destroyed. With over 3,000 circuits folders, this is a time consuming job.

(2) Inefficiencies of this System are:

(a) Loss time taken to go to the filing cabinet, find circuit folder, return to SYSCON workbench, copy circuit information on to trouble ticket, and place circuit folder back in suspense box.

(b) When questions of circuit path, terminals, and isolation of trouble came up, controllers had to go through the suspense box, find the circuit folder in order to assist in providing information to higher and lower echelons of control.

(c) Trouble tickets for the previous 90 days made circuit folders cumbersome to handle and work with, also making them take up more space needed for use by controllers.

(d) At the end of each work day, the folders had to be taken from the back to traffic box, that days trouble ticket placed inside the folder and the outage information entered on the circuit outage history log. Then the circuit folders had to be filed in the filing cabinets used to store them.

(3) The system now in use involves the following:

(a) Circuit information is now kept on 5X8 index cards.

(b) All circuit information pertinent to circuit restoral is maintained on this circuit card.

(c) Each circuit had its own circuit card.

(d) All circuit cards are kept on file on the SYSCON workbench.

(e) Log out of circuits, transfer of circuit information on to trouble tickets, and reporting to other units are done at the SYSCON workbench.

(f) At the end of the work day, the trouble tickets are filed in a folder for that particular day, the outage information logged on to the circuit outage history log in the circuit folder.

(4) Advantages of this system over the previous system.

(a) The SYSCON controllers have all the information about the circuit of any 160th responsibility at their fingertips rather than having to go to a filing cabinet, remove the circuit folder and return to SYSCON to copy the necessary information on to the trouble ticket. This facilitates more rapid reporting and assisting in circuit restoral.

(b) At any time during or after an outage that circuit routing, terminals, type path, etc. information is requested about any particular circuit, the controllers again have the information at their fingertips.

(c) It is no longer necessary to have the circuit folders on the SYSCON workbench, thus saving space as well as time.

(d) In the daily filing system, if information is requested concerning a previous outage, all that is required is the date of the outage, and the CCSD of the circuit. The controllers can then go to the particular folder that contains the trouble tickets for that particular day and find the information. Under this method, there are only 90 folders to look at, and these are dated, whereas, in the previous method, there were over 3,000 folders in which to find the desired information. These folders were labeled as to CCSD of the circuit, but the present system is much faster in comparison.

(e) By regulation, it is necessary to destroy circuit trouble tickets after they are kept for 90 days. Under the present system, when each days trouble tickets are filed, the trouble tickets for the 90th day are destroyed and that days trouble tickets are placed in that folder. This assures prompt adherence to regulation as well as being a tremendous saving in time over the previous method of removing trouble tickets from each circuit folder.

(c) RECOMMENDATION: The record keeping procedure described above be made available to all SYSCON type operations.

(d) COMMAND ACTION: The system described above is in use in this command.

(3) DSTE Installation:

(a) OBSERVATION: The initial checkout period for DSTE installations should be lengthened.

(b) EVALUATION: The period ending 30 April 1971 was characterized by the installation of digital subscriber terminal equipment-

(DSTE) at four locations within the command (Phu Lam ARS, LBN RMR, MACV-CC, and USARV-TCC). During the first two weeks of operations the DSTE's were plagued with hardware malfunctions. There was also some trouble with operator error in the preparation of tapes. The impact on customer service could be reduced if the initial testing period were lengthened to allow more breaking time for the hardware and more hands on operation for the operations after the initial check by the installers.

(c) RECOMMENDATION: That consideration be given to allowing more time for all DSTE installations.

(d) COMMAND ACTION: An additional 14 days installation time will be requested for all future DSTE installations in this command.

h. Material:

(1) CLSC-V, Support and Security, Materials:

(a) OBSERVATION: Lack of recognition of National and DOD directed security requirements result in considerable difficulty in procurring mission essential support in the area of materials.

(b) EVALUATION: Mission performance is sometimes affected because of absence of security construction materials and hardware and also of protective packing and crating materials needed from the security handling aspects of the equipment involved.

(c) RECOMMENDATION: That all Engineer Construction and Repair and Utilities, as well as Depot organizations and functions be made fully cognizant of National and DOD security and protective criteria which must be met in handling and shipping COMSEC material.

(d) COMMAND ACTION: As in the recommendation above, locally.

(2) SEAPC, Photographic Flash Unit LM-33.

(a) OBSERVATION: The photographic flash unit LM-33 is not compatable with the KS-4A2 still camera.

(b) EVALUATION: Use of the LM-33 causes burned or damaged contacts in the lens of the KS-4A2 due to excess tripping voltage supplied by the LM-33 unit.

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SUBJECT: Operational Report - Lessons Learned 160th Signal Group Period ending 30 April 1971, RCS CSFOR - 65 (R3).

(c) RECOMMENDATION: Units utilizing the LM-33 flash units and the KS-4A2 still camera refrain from utilizing these units in conjunction until a modified work order is circulated. Further recommend the Army purchase a flash unit which is compatable with the existing equipment.

(d) COMMAND ACTION: The LM-33 flash units will not be utilized until a modified work order is circulated. Local ECOM personnel are presently working on the technical aspects of the problem.

i. Other: None.

JAMES L. JONES
COL, SigC
Commanding

DISTRIBUTION:
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2- CINCUSARPAC, ATTN: GPOP-DT, APO 96558

SCCPV-OP-CC (15 May 71) 1st Ind
SUBJECT: Operational Report Lessons Learned 160th Signal Group Period Ending 30 April 1971, RCS CSFOR-65 (R3)

DA, HQ, 1st Signal Brigade (USASTRATCOM), APO 96384 20 June 1971

TO: Commanding General, United States Army, Vietnam, ATTN: AVHGC-DST, APO 96375

1. Subject report is forwarded in accordance with AR 525-15.

2. This headquarters has reviewed the report and concurs in it with the following comments and/or exceptions:

a. Reference pg. 4, para 1.c.(2)(f). Corrected names are: COL Pong Pokanan and COL Sudchai Thongpiew.

b. Reference pg. 12, para 1.g.(3)(d), line 1 should read: "Manual Teletype ...." Under "(WITHOUT ASC)" the TOTAL 777,334 should be entered.

c. Lessons Learned, pg. 14, para 2.c.(2)(a) thru 2.c.(2)(d) and 2.c.(2)(e) thru 2.c.(2)(h) are separate items. The later item should have been designated as 2.c.(3)(a) thru 2.c.(3)(d) and contain a separate title.

d. Reference item, "MOS 72B (Communication Center Specialist)", pg. 15, para 2.e.(3)(c). It has been the experience of this Headquarters that nearly all personnel, newly assigned from CONUS MOS producing courses, require a significant period of OJT before they become completely reliable and proficient repairmen or operators. This includes even relatively basic MOS's such as 31M (RADREL and Carrier Attnd) and 72B (COMMOD Sp). Recommend that the observation and recommendation contained in para 2c(3) be forwarded to USASESS, Fort Gordon for evaluation.

e. Reference pg. 17, para 2.g.(1)(b), line 8 should read: ".... approximately an hour later ...."

f. Reference item, "SYSCON Record Keeping", pg. 18-20, para 2.g.(2). The system proposed by the 160th Sig Gp is a work simplification procedure which will have to be evaluated by each group to determine whether it can be effectively used by them. The physical layout of syscon will help determine whether this method will be simpler. If the circuit folders are located where the controller does not have to move to obtain them, then the use of individual ckt cards would be extra work. Individual circuit cards will require additional work in preparing and updating these cards. Since a circuit history card is kept in the circuit folder, there is no requirement to keep the trouble tickets filed in the same folder. The filing of trouble tickets by day is a more practicable and easier system. This system will be made available to the other groups for their evaluation and use if desired.

SCCPV-OP-CC
SUBJECT: Operational Report Lessons Learned 160th Signal Group Period Ending 30 April 1971, RCS CSFOR-65 (R3)

g. Reference pg. 18, para 2.g.(2)(b)(1)(d), should read: ".... suspense box until the ...."

h. Reference pg. 19, para 2.g.(2)(b)(3)(c), should read: ".... each circuit had ...."

i. Reference pg. 20, para 2.g.(2)(b)(4)(d), line 6, should read: ".... only 90 folders to look ...."

FOR THE COMMANDER:

D. H. BURGIER
CPT, AGC
Asst AG

CF:
Assistant Chief of Staff for Force Development, Department of the Army, Washington, D.C. 20310
Commanding General, U.S. Army Strategic Communications Command, ATTN: SCC-OPS-RT, Ft Huachuca, Arizona 85613
Commanding Officer, 160th Signal Group, APO 96491
Commanding Officer, 2d Signal Group, APO 96491
Commanding Officer, 12th Signal Group, APO 96349
Commanding Officer, 21st Signal Group, APO 96240
Commanding Officer, 29th Signal Group, APO 96346

AVHDO-DO (16 May 71) 2d Ind
SUBJECT: Operational Report-Lessons Learned 160th Signal Group
Period Ending 30 April 1971, RCS CSFOR-65 (R3)

Headquarters, United States Army Vietnam, APO San Francisco 96375 31 JUL 1971

THRU: Commanding General, United States Army Strategic Communications Command-Pacific, APO 96557

TO: Commander in Chief, United States Army Pacific, ATTN: GPOP-FD APO 96558

This Headquarters has reviewed the Operational Report-Lessons Learned for the period ending 30 April 1971 from Headquarters, 160th Signal Group and concurs with comments of indorsing headquarters.

FOR THE COMMANDER:

I. L. CHILDRESS
CPT AGC
ASSISTANT ADJUTANT GENERAL

Cy furn:
160th Sig Gp
1st Sig Bde

SCCP-OP-OOE (16 May 71) 3d Ind
SUBJECT: Operational Report - Lessons Learned 160th Signal Group
Period Ending 30 April 1971, RCS CSFOR - 65 (R3)

Headquarters, US Army Strategic Communications Command-Pacific, APO San Francisco 96557 23 AUG 1971

THRU: Commander in Chief, United States Army, Pacific, ATTN: GPOP-FD, APO 96558
Commanding General, US Army Strategic Communications Command, ATTN: SCC-PO-CEFF, Fort Huachuca, Arizona 85613

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

1. Subject report is forwarded in accordance with AR 525-15.

2. This headquarters concurs with the report as indorsed.

FOR THE COMMANDER:

ANN M. RIOU
CPT, WAC
Acting Asst AG

CF:
CG, USARV, APO 96375 wo incl
CG, 1st Sig Bde (USASTRATCOM0, APO 96384 wo incl
CO, 160th Sig Gp (USASTRATCOM), APO 96491 wo incl

GPOP-FD (16 May 71) 4th Ind
SUBJECT: Operational Report-Lessons Learned, HQ 160th Signal Group, Period Ending 30 April 1971, RCS CSFOR-65 (R3)

HQ, US Army, Pacific, APO San Francisco 96558 28 SEP 1971

THRU: Commanding General, U. S. Army Strategic Communications Command, Fort Huachuca, Arizona 85613

TO: HQ DA (DAFD-ZA), WASH DC 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:

M. L. Mah

M. L. MAH
1LT, AGC
Asst AG

SCC-PO-CEFF (26 Oct 71) 5th Ind
SUBJECT: Operational Report Lessons Learned, HQ 160th Signal Group, Period Ending 30 April 1971, RCS CSFOR-65 (R3)

Headquarters, U. S. Army Strategic Communications Command, Fort Huachuca, Arizona 85613 12 NOV 1971

TO: Headquarters, Department of the Army (DAFD-ZA), Washington, D.C. 20310

This headquarters concurs in subject report, with the following comments:

a. Reference page 15, paragraph 2e(1) and (2): The soon to be published USASTRATCOM Alcohol and Drug Abuse Prevention and Control Plan (ADAPCP) specifically states that a complete drug orientation will be given to all individuals returning from or arriving at overseas assignments. The DA ADAPCP also requires that instruction in drug abuse prevention will be presented in the curricula of all service schools, which will include both drug information and training. This training program should alleviate the current lack of knowledge in drug identification and abuse.

b. Reference page 15, paragraph 2e(3) and 1st Indorsement, paragraph 2d: The current Program of Instruction for MOS 72B requires that 12 hours of training be devoted to COMSEC accounting. This headquarters does not concur in the establishment of a separate ASI or MOS for COMSEC accounting. Action is being taken to request a Program of Instruction update to include more in-depth training on COMSEC material accounting.

c. Reference page 16, paragraph 2e(4): The new Program of Instruction for MOS 84G20, September 1971, has been updated to include 114 hours of instruction in color processing and printing techniques. All enlisted men graduating from this MOS course after September 1971 will have received this training. The requirement for extensive on the job training in color printing, as stated in inclosure 1, should be gradually eliminated as field units receive 84G gains who were trained under the new Program of Instruction.

FOR THE COMMANDER:

Keith W. Bell

KEITH W. BELL
1LT, AGC
Asst Adj Gen

2. Lessons Learned: Commander's Observation, Evaluations, and Recommendations:

SCCPV-CS 20 May 1971
SUBJECT: Operational Report Lessons learned of Headquarters, 1st Signal Brigade (USASTRATCOM) for Period Ending 30 April 1971 RCS CSFOR-65 (R3)

a. Personnel:

(1) Unit Administration.

(a) OBSERVATION: Unit administration and unit supply continues to be marginal or unsatisfactory in a majority of units inspected.

(b) EVALUATION: The primary contributing factor to the unsatisfactory and marginal conditions stated above appears to be the lack of qualified personnel. Further, both areas, unit supply and unit administration require increased command emphasis at all levels of command.

(c) RECOMMENDATION: That continued assistance and guidance be provided to the various Brigade units in the areas of unit administration and unit supply.

(d) COMMAND ACTION: Units are advised that Brigade assistance is available upon request.

b. Intelligence: None

c. Operations:

(1) Tactical Tropo Systems Engineering.

(a) OBSERVATION: During a study of 1st Signal Brigade tactical tropo systems, it was determined that the engineering efforts could be improved with additional information and by using a different method of calculation.

(b) EVALUATION: The additional information required consists of chart recordings on receive carrier intensity (CI) levels for a period of 30 days. This provides a visual presentation of system performance and a historical record to be used for engineering purposes. A more detailed calculation procedure (utilizing National Bureau of Standards, Note 101) should be used when simplified calculations indicate that the system would operate marginally.

(c) RECOMMENDATION: That findings of the evaluation be put into use.

(d) COMMAND ACTION: Carrier Intensity readings are being compiled on several systems and the more detailed calculation methods are being used.

(2) Brigade Forward Operations Center (BFOC) for Operation LAM SON 719.

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SCCPV-CS 20 May 1971
SUBJECT: Operational Report Lessons Learned of Headquarters, 1st Signal Brigade (USASTRATCOM) for Period Ending 30 April 1971 RCS CSFOR-65 (R3)

(a) OBSERVATION: Establishing a BFOC assisted operations in fulfilling signal support requirements for Operation LAM SON 719.

(b) EVALUATION: During the early phases of Operations LAM SON 719, the 1st Signal Brigade was not able to effectively respond to or evaluate requests for assistance from the 12th Signal Group. Reports of systems and circuit outages were slow, status of circuit activations were unknown and requests for assistance were delayed. To overcome these problems, a BFOC was established next to the 12th Signal Group forward Operations Center. Immediate improvement was noticed in reporting of systems and circuit status and in the accelerated processing of requests for assistance. This was attributed to the immediate availability of Brigade personnel on site who were able to evaluate the changing situations and make recommendations to meet communications requirements.

(c) RECOMMENDATION: In the future, communications operations in supporting tactical operations similar to Operation LAM SON 719, establishment of a BFOC should be considered early in operations planning.

(d) COMMAND ACTION: Lessons learned from Operation LAM SON 719 will be applied to future operations planning.

d. Organization:

(1) Internal Reorganization.

(a) OBSERVATION: The increased emphasis on Vietnamization and corresponding reductions in the 1st Signal Brigade structure had accordingly increased the units workload. This drastic increase in retrograde requirements also exceeded the capabilities of the Communications Assets Recovery Agency (CARA).

(b) EVALUATION: It appeared necessary to develop a totally new organization whose primary mission would be Removal, Preservation, Packing and Packaging.

(c) RECOMMENDATION: A request was forwarded from the 1st Signal Brigade Hq to DA recommending a separate TDA for CARA increasing the numbers of personnel and equipment and assigning a primary mission of performing retrograde for all 1st Signal Brigade assets.

(d) COMMAND ACTION: Under the provisions of G.O. #450 dtd 28 February 1971, CARA became a separate entity. G.O. #776 dtd 6 April 1971 assigned operational control of CARA to the CO, CSEMA, and administrative control to the CO, 160th Signal Group.

e. Training:

(1) OJT Training.

(a) OBSERVATION: MACV and Russell Relay comm centers have encountered high reject rates immediately subsequent to cutovers of the DSTE's.

(b) EVALUATION: The cause was attributed to untrained personnel. Although the MOS for DSTE operators is 72F, the same as for UNIVAC 1004 and IBM 360/20 operators, and differences between operation of the various terminal types are minor. Untrained personnel were not familiar with the capabilities and limitations of the systems, especially the requirements for input messages. Many of the 72F's who are DSTE trained have worked with other systems and have forgotten some of the peculiarities of DSTE.

(c) RECOMMENDATION: A short OJT program in addition to the OJT during phase III testing can provide a refresher for DSTE trained operators and sufficient background for the 1004 and 360/20 operators to adequately operate the DSTE equipment.

(d) COMMAND ACTION: Operating units have been advised to cross-train personnel and institute an OJT program so that personnel are familiar with equipment prior to cutover.

(2) Switchboard Operator Training.

(a) OBSERVATION: Training and supervision of DSA switchboard operators is poor at some DTE's.

(b) EVALUATION: This results in slow service, accidental disconnects, wrong numbers, and generally unsatisfactory service to subscribers.

(c) RECOMMENDATION: Operators must be thoroughly trained and supervised. Posters containing key points are often helpful reminders for local national operators.

(d) COMMAND ACTION: Emphasis is being directed to improve training of operators at DTE's.

f. Logistics.

(1) Restoration of Useable Assets.

(a) OBSERVATION: A majority of installation tasks utilized assets that had been removed from other sites. It was found that an excessive amount of

time and labor was required to restore many items to a useable condition. Examples are: Repairing or replacing lost or damaged components of modems and teletype gear, cleaning of pin blocks on frames where solder and jumper wires were not removed, and replacement of cut or damaged inter-bay wiring.

(b) EVALUATION: It is apparent that personnel involved in the removal, packing, and shipment of C-E items must exercise extreme care if equipment is to be used in another installation.

(c) RECOMMENDATION: Personnel should be supervised in retrograde activities by experienced personnel.

(d) COMMAND ACTION: Emphasis is being put on the proper and careful removal and packing of communications equipment which is to be used for future installations.

(2) Inadequate Maintenance of Air Conditioners.

(a) OBSERVATION: Recent observations have revealed that many air conditioner units were being operated continuously without daily preventative maintenance services.

(b) EVALUATION: This observation was substantiated by the number of units reporting either clogged or missing air filters. This lack of maintenance affects the operation of the air conditioning units. The use of dirty or clogged air filters restricts the air circulation needed for proper cooling of the internal components of the air conditioner unit. Without proper cooling, continued operation can cause serious heat damage. Operating with a dirty filter or without an air filter allows foreign particles to penetrate the shelter or terminal facility, contaminate the equipment and cause malfunctions resulting in equipment down-time.

(c) RECOMMENDATION: Air conditioner units should be inspected daily and corrective action taken to correct deficiencies. All sites should have technical manuals available and assure that manuals are used by maintenance personnel. Each site should assure that proper maintenance schedules are maintained and performed properly.

(d) COMMAND ACTION: A message was transmitted to all 1st Signal Brigade units alerting the unit commanders of the situation.

(3) Radio Sets AN/GRC-106/122/142 Used as Fixed Station Equipment.

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(a) OBSERVATION: Power amplifier AM3349, component of Radio Sets AN/GRC-106/122/142 was experiencing increased failure rates.

(b) EVALUATION: The radio set is being used as fixed station equipment and the air conditioner provided with the equipment is inadequate for environmental conditions prevalent in the RVN. During a 24 hour operating period, one hour of downtime for preventative maintenance is required by TM11-5815-334-12. The following field fix was applied to one radio set and proved very successful.

1. Ventilating fan was removed.

2. An 18,000 BTU air conditioner input was installed in the original ventilating exhaust port.

3. Exhaust hose was removed from the AM3349.

4. Exhaust hose was relocated and placed directly between the AM3349 heat exchange inlet and the newly installed air conditioner. This experience relates only to the unlettered models of the equipment. The modified Radio Set has been operating in excess of 60 days without a power amplifier failure.

(c) RECOMMENDATION: That improved air cooling be incorporated in the design of the power amplifier AM3349 which is part of radio set AN/GRC-106/122/142.

(d) COMMAND ACTION: A Field Engineering Action Report (FEAR) (WNT 3-16 "URGENT") was submitted on 9 Apr 71 to USA ECOM, Fort Monmouth NJ, ATTN: ECOM HQ, COMM ADP.

g. Communications:

(1) Message Rejects at DSTE's.

(a) OBSERVATION: DSTE terminals were receiving reject service wires not identifying reject messages.

(b) EVALUATION: Investigation revealed that the tape transmit procedures being used had reader star wheels aligning on other than letter keys on leader portion of message tapes. Misread leaders of tapes resulted in rejects. When tape leaders have an excessive number of letter functions and a letter function is misread as a character, the reject wire generated by the switch often does not identify the exact message. The ASC will read out the 10th to 28th

character of a reject wire. If the misread function is more than 13 characters before the start of the message, the original station serial number is not identified. Also, situations have been experienced where the tape has stopped in the reader for no apparent reason. Depressing the start switch would not restart the tape but depressing the "Single Feed" prior to depressing the start switch would allow the tape to restart. This action is identical to restarting the DSTE. The switch is expecting a header and prints out a reject identifying only a portion of unrecognizable text.

(c) RECOMMENDATION: By insuring that blanks precede the six letter functions which are required to start the header of a message, the star wheels align and the tape reader reads the letter functions correctly. In the case where the tape stops, "cancel" is automatically generated by the DSTE. This indicator light was being ignored by the operator. Every tape that stops in transmission must be restarted from the beginning. Prior to starting any message through the DSTE tape reader, the operator will depress the cancel switch to cancel characters that may have been erroneously loaded by either end of the preceding message or loaded into the buffer while putting the tape in the reader.

(d) COMMAND ACTION: This information has been disseminated to all DSTE terminals and will be an item of inspection interest.

(2) Busy-Out of Defective Trunks at DTE's.

(a) OBSERVATION: Defective trunks at DTE's are often not busied out by activating the busy key on the trunk equipment.

(b) EVALUATION: This permits subscribers to continue to gain access to a faulty trunk causing degraded service and generating subscriber complaints.

(c) RECOMMENDATIONS: DTE supervisors should insure that all personnel immediately busy out defective trunks and notify the SWC, DTE or MTE at the distant end to do the same.

(d) COMMAND ACTION: This condition has been brought to the attention of unit commanders for corrective action.

(3) Transients Signals in EAC's.

(a) OBSERVATION: Calls over trunks between the MACV and USARV EAC's (Emergency Action Consoles) were released by the equipment before completion.

(b) EVALUATION: This condition apparently resulted from transit the microwave portions of the trunks which were concurrent with cut-through of the code matrix at the EAC. The 2600 HZ tone from the called EAC was blanked by these transients, resulting in a momentary indication of a called subscriber answer and immediate return to on-hook condition. This momentary "answer" was processed by the calling EAC as a completed call. Temporary 1K ohm resistors were inserted in the E lead of these trunks at the EAC's, reducing their sensitivity to the short signals. Three days of testing by the 160th Signal Group, SEA-TELMA and ECOM representatives failed to locate the source of the transient signals. During trouble shooting the transient signals vanished. The resistors were removed from the E leads and normal operation resumed.

(c) RECOMMENDATION: An investigation of this phenomena should be conducted at Fort Monmouth or another designated agency to determine if a design deficiency exists in the EAC's and to determine corrective action if necessary.

(d) COMMAND ACTION: Assistance in studying varistors to limit signals has been requested through the local ECOM field office.

(4) Phu Bai Tactical Tech Control (TTC) Interface Problems.

(a) OBSERVATION: The Phu Bai TTC experienced problems when TH-5s (Teletype converters) were used on Mode V circuits.

(b) EVALUATION: The Phu Bai TTC had no menas of checking TH-5s for distortion and would change TH-5s everytime that circuits troubles occurred. The 1st Signal Brigade Quality Assurance (QA) team was tasked to provide assistance. Using a distortion analyzer, the QA team determined that 9 of 10 TH-5s checked were defective. Further inquiry indicated that the TH-5s were sent to the Electronic Maintenance (ELM) shop at the local support maintenance for repair. These units were tested and returned as "good". Investigation by the Brigade QA team revealed that test performed by the ELM shop was inadequate. A normal loop to a local teletype machine was used as the test for the TH-5. This test was inadequate because it failed to indicate the degree of distortion passed by the defective TH-5. The QA team instructed the ELM shop personnel in the proper use of available test equipments to measure distortion levels of TH-5s. OJT on measuring bias, square wave, tone levels, frequency distortion, etc. was conducted. The major problem of the TH-5s was determined to be the existence of an AC ripple imposed on the teletype signal when processed through the TH-5. This was attributed to degraded AC filter networks within the TH-5. The degree of measured degradation would not affect

normal teletype operation but was inadequate for highly sensitive circuits such as the Mode V.

(c) RECOMMENDATION: It was recommended that the TH-5's be replaced with TH-22s on Mode V circuits wherever practical. Experience has dictated that the newer TH-22 is less apt to possess degraded filter networks. Also the TH-5s should be tested properly by the ELM shop and the degree of distortion measured indicated on a tag attached to the TH-5.

(d) COMMAND ACTION: This information was provided to the 12th Signal Group for action.

h. Material:

(1) Cable Reel Repair.

(a) OBSERVATION: The humid climate of Vietnam and similar tropical areas causes wooden cable reels to rapidly deteriorate. If the cable is not used immediately the reel soon deteriorates to the point where the cable is damaged by the collapsing reel.

(b) EVALUATION: Considerable cable damages was occurring because of collapsed reels, especially in the more expensive 300 to 900 pair and larger cables. Damage was directly attributed to the deterioration of the wooden cable reels.

(c) RECOMMENDATION: It was recommended that all cables received on wooden reels be re-reeled onto steel reels as soon as practical. In order to implement this re-reeling, a source for steel reel rehabilitation had to be found. It was determined that the Depot Conex Repair Facility was capable of repairing steel reels.

(d) COMMAND ACTION: The CG 1st Signal Brigade directed all units to return empty steel reels both serviceable and unserviceable to the CSEMA Cable Yard. CSEMA in turn was directed to have the reels repaired and re-reel cable on to steel reels.

i. Other:

(1) Testing of Duct Systems.

(a) OBSERVATION: Testing of the newly installed duct system proved inadequate due to the large number of cracked, broken, and incomplete ducts.

(b) EVALUATION: Several times in the past, duct systems have been installed but the testing of these ducts was not properly supervised.

(c) RECOMMENDATION: A supervisor should accompany the testing of the duct systems.

(d) COMMAND ACTION: It is now standard operating procedure to supervise the actual testing for acceptance. It is required that this test consist as a minimum of pulling a 2" mandril through each duct to insure completeness of the system. Each acceptance report will contain an affidavit from each supervisor that this was witnessed.

(2) Phase-in of contractor personnel for the COMVETS program.

(a) OBSERVATION: Several problems were encountered with the phase-in of contractor, Federal Electric Corporation (FEC) personnel under the COMVETS program, including:

1. FEC failure to meet manning levels required by the contract.

2. Issuance of ID cards, ration cards, passes, etc.

3. Lack of adequate skills of hired personnel.

4. Transition between incumbent, contractor and successor contractor.

5. GFE vehicles for transportation.

6. Lack of specialized tools at Dial Telephone Exchange (DTE) sites.

7. Lack of clearly defined requirements in awarded contract.

(b) EVALUATION:

1. FEC failed to meet the manning level required by the contract which required 1659 contractor personnel, by skill, in-country by a predetermined schedule. This requirement was not met in two respects. (1) Contractor was under staffed on the scheduled target data and (2) the technical ability of contractor personnel was doubtful. The phase-in time allowed by the contract was insufficient to allow the orderly take-over of the communication systems facilities and functions. Originally scheduled for 81 days, the phase-in period was reduced to 67 days to make up for time lost as a result of a stop-work order and other delays subsequent to the award of the contract.

2. The arrival of contractor personnel greatly taxed the local sources in the preparation of ID cards, ration cards, passes, etc. Further complications arose due to differences in contract items and local regulations and directives. Certain contractor personnel were required to work in areas which required special security clearances. Problems with security requirements, of the military and the State Department along with additional problems involving third country nationals, delayed the contractors response to certain situations.

3. FEC was unable to hire, process and place in-country the numbers and skills required. When the date of FEC take-over approached, manning levels and deficiencies in specific skills were evidenced by the levels of performance being achieved. In addition, a high turn over rate of the initial increment of contractor personnel, a total of 55 personnel, was experienced during the first month.

4. The transition between the incumbent contractor and successor contractor was less than desirable. This was in part due to legal action taken by the incumbent.

5. The contract specified the number and types of vehicles to be provided to the contractor. This requirement was not met by the Government. Vehicles other than those required in the contract were provided. The contract contemplated types and numbers of vehicles which were not available from local resources. The vehicles required were finally provided but their operational status was such that FEC experienced a higher than expected deadline rate. Additionally, as US units stand down, motor pools which provide maintenance for these vehicles disappear. Vehicles must be returned to the TMP's for maintenance services and, frequently, the TMP's are located in areas other than where the services are required which further complicates vehicle support capabilities.

6. DTE sites have a requirement for sophisticated tools and test equipment. Many of these items are missing from the sites and thus, to some extent, have precluded the contractor from carrying out his assigned tasks.

7. The contract does not clearly define the responsibilities of Government or the contractor. This drawback has resulted in numerous additional negotiations between both parties.

(c) RECOMMENDATION:

1. Future contracts should allow a sufficient transition time for the phase-in of a contractor take over.

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2. The problem of issue of ID cards, ration cards etc., can be alleviated by issuing some of these cards at the CONUS point of departure or other designated CONUS locations.

3. Anticipating contractor personnel turn-over should be considered in estimating length of phase-in periods.

4. Provisions should be included in contracts to facilitate a smooth turn-over in cases where the new contractor replaces an incumbent contractor.

5. Transportation support provisions of contracts should be researched thoroughly prior to contractual commitments.

6. Special tools and their availability at the affected sites should be confirmed prior to contract implementation.

7. Greater emphasis should be placed on a thorough pre-award analysis of conditions and requirements.

(d) COMMAND ACTION: Negotiations with the FEC contractor are continuous with a large portion of the negotiations being conducted with USASTRATCOM at Fort Huachuca, Ariz.

3. Headquarters, Department of the Army Survey Information:

Impact of Weather on Operations.

(a) Heavy rains and floods in December 1970 caused extensive damage to the Da Nang East DTE outside plant cable and degraded telephone communications to several major commands in the Da Nang area. Local commanders were informed of the extent of the problem and corrective action was implemented immediately. The majority of telephone service to Military Advisory Group-16, 1st Engineer Battalion and 2d Battalion 1st Marine Division were restored within a few days.

(b) Experience indicates that the approaching rainy season in the RVN will adversely affect communications to supported commanders. Increased circuit outages (primarily for local subscribers) are anticipated due to outside plant cable facilities being exposed to severe environmental conditions.

FOR THE COMMANDER:

Joseph Paradis

JOSEPH F. PARADIS
Colonel, GS
Chief of Staff

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SCCPV-CS 20 May 1971

SUBJECT: Operational Report Lessons Learned of Headquarters, 1st Signal Brigade (USASTRATCOM) for Period Ending 30 April 1971 RCS CSFOR-65 (R3)

DISTRIBUTION:
Commander in Chief, United States Army Pacific, ATTN: GPO-DT, APO 96558
Commanding General, United States Army Strategic Communications Command, ATTN: DCSOPS, SCC-OP-RT, Fort Huachuca, Arizona 85613
Commanding General, United States Army Strategic Communications Command-Pacific, ATTN: SCCP-Or, APO 96557
Commanding General, United States Army Vietnam, ATTN: AVHGC-DST, APO 96375
Commanding Officer, 2d Signal Group, APO 96491
Commanding Officer, 12th Signal Group, APO 96308
Commanding Officer, 21st Signal Group, APO 96240
Commanding Officer, 29th Signal Group, APO 96346
Commanding Officer, 160th Signal Group, APO 96491
Commanding Officer, Contract Management Agency Vietnam (Provisional) APO 96243

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AVHDO-DO (20 May 71) 1st Ind
SUBJECT: Operational Report Lessons Learned of Headquarters, 1st Signal Brigade (USASTRATCOM) for Period Ending 30 April 1971 RCS CSFOR-65 (R3)

Headquarters, United States Army Vietnam, APO San Francisco 96375 7 JUN 1971

THRU: Commanding General, United States Army Strategic Communications Command-Pacific, APO 96557

TO: Commander in Chief, United States Army Pacific, ATTN: GPOP-FD, APO 96558

Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

This Headquarters has reviewed the Operational Report-Lessons Learned for the period ending 30 April 1971 from Headquarters, 1st Signal Brigade and concurs.

FOR THE COMMANDER:

for JACK P. COOK
CPT, AGC
Assistant Adjutant General

Cy furn:
1st Sig Bde

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SCCP-OP-OOE (20 May 71) 2d Ind
SUBJECT: Operational Report Lessons Learned of Headquarters, 1st Signal Brigade (USASTRATCOM) for Period Ending 30 April 1971 RCS CSFOR-65 (R3)

Headquarters, United States Army Strategic Communications Command-Pacific, APO San Francisco 96557 7 JUL 1971

THRU: Commander in Chief, United States Army, Pacific, ATTN: GPOP-FD, APO 96558
Commanding General, United States Army Strategic Communications Command, ATTN: SCC-PO-CEFF, Fort Huachuca, Arizona 85613

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D.C. 20310

1. Subject report is forwarded in accordance with AR 525-15.

2. This headquarters has reviewed the report and preceding indorsement and offers the following comments:

a. Reference paragraph 2i(2), page 27, basic letter. The recommendations listed in this item have been recognized by this headquarters and are being considered for incorporation in future contracts, i.e., COMTEFS.

b. The security classification stamped on the 1st Indorsement was marked in error per CGUSARV message AVHDO-DO, DTG 270509Z June 1971.

FOR THE COMMANDER:

ANN M. RIOU
CPT, WAC
Acting Asst AG

CF:
CG, USARV, APO 96375 wo incl
CG, 1st Sig Bde (USASTRATCOM), APO 96384 wo incl

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GPOP-FD (20 May 71) 3d Ind
SUBJECT: Operational Report-Lessons Learned, HQ 1st Signal Brigade (USASTRATCOM) for Period Ending 30 April 1971 RCS CSFOR-65 (R3)

HQ, US Army, Pacific, APO San Francisco 96558 11 AUG 1971

THRU: Commanding General, U. S. Army Strategic Communications Command, Fort Huachuca, Arizona 85613

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:

M. L. Mah

M. L. MAH
2LT, AGC
Asst AG

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2-0 [illegible]

SCC-PO-CEFF(20 May 71) 4th Ind
SUBJECT: Operational Report-Lessons Learned, HQ 1st Signal Brigade (USASTRATCOM) for Period Ending 30 April 1971 RCS CSFOR-65 (R3)

Headquarters, U.S. Army Strategic Communications Command, Fort Huachuca, Arizona 85613

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D.C. 20310

This headquarters concurs in subject report with the following comment: Critical comments regarding the procurement of cable on wooden reels have been received during the past four years. These comments were forwarded to all concerned. No corrective action has been noted. Procurement of cable on wooden reels for tropical climates is unsatisfactory and causes an unnecessary expenditure of resources.

FOR THE COMMANDER:

W. O. POLSTON
MAJ, AGC
Asst Adj Gen

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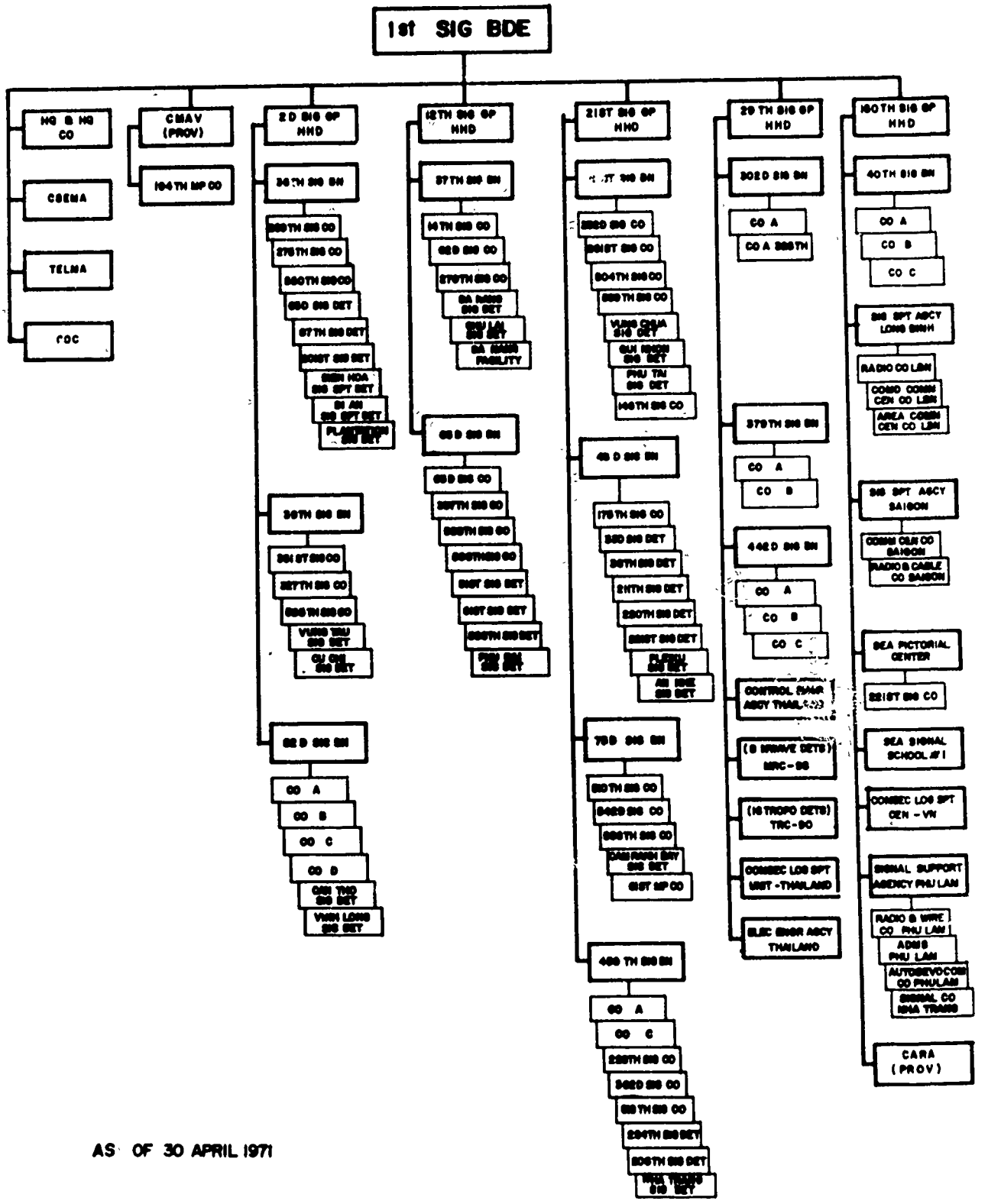
1st SIG BDE
HQ & HQ CO
CSEMA
TELMA
FOC
CMAV (PROV)
194TH MP CO
2D SIG GP HHD
12TH SIG GP HHD
21ST SIG GP HHD
29 TH SIG GP HHD
160TH SIG GP HHD
40TH SIG BN
CO A
CO B
CO C
SIG SPT AGCY LONG BINH
RADIO CO LBN
AREA COMM CEN CO LBN
SIG SPT AGCY SAIGON
COMM CEN CO SAIGON
RADIO & CABLE CO SAIGON
SEA PICTORIAL CENTER
SEA SIGNAL SCHOOL #1
CONSEC LOG SPT CEN - VN
SIGNAL SUPPORT AGENCY PHU LAM
RADIO & WIRE CO PHU LAM
AUTOSEVOCOM CO PHU LAM
CARA (PROV)
AS OF 30 APRIL 1971

SCCPV-UG-FS-O 22 May 1971
SUBJECT: Operational Report - Lessons Learned for 40th Signal Battalion (C), Period Ending 30 April 1971, RCS CSFOR-65 (R3)

2. Lessons Learned:

a. Personnel:

(1) Shortage of Qualified Cable Splicers and Supervisors:

(a) OBSERVATIONS: Because of the continuing requirement to accomplish cable construction and rehabilitation projects, experienced cable splicers and cable splicer supervisors are required.

(b) EVALUATION: Replacement personnel qualified in MOS 36E, Cable Splicing, are not being received by this battalion in sufficient quantity. By MTOE this battalion is authorized 61 personnel in MOS 36E. The 61 personnel are authorized in grades E-7, E-6, E-5, E-4, and quantities of 4, 3, 15, and 33 respectively. There are only 52 of the total number authorized that are currently assigned. Additionally, a large number of personnel assigned in MOS 36E require retraining prior to beginning work. Local schooling at Southeast Asia Signal School NRI and on-the-job training have enabled this Battalion to continue it's assigned mission. The capability of this battalion is directly proportional to the availability of qualified 36E personnel as current projects are predominantly splicing jobs i.e. MACV and Long Binh Duct System, IV Corps Frame, and the rehabilitation projects assigned at Da Nang, Chu Lai and Phu Bai.

(c) RECOMMENDATION: That higher headquarters monitor assignment and requisition of cable splicer personnel and supervisors and that every effort be made to assign splicers and splicer supervisors to the 40th Signal Battalion (C).

(d) COMMAND ACTION: Increased quotas at SEASS-1, 160th Signal Group, have been requested for 3d and 4th quarter FY-71. A Battalion school will be organized to further train and cross-train personnel in MOS 36E. Additionally, a change to the Brigade Authorization Document System has been submitted thru 160th Signal Group to 1st Signal Brigade requesting an increase of 6 personnel in MOS 36E per lettered company, for a total of 18 additional splicer personnel. Trade-offs for the requested 36E's were offered from MOS 36C.

(2) Shortage of Wheeled Vehicle Mechanics MOS 63B:

(a) OBSERVATION: Insufficient number of trained mechanics are assigned to this Battalion. By MTOE this battalion is authorized 33 personnel in MOS 63B20 and 6 personnel in MOS 63B40 for a total of 39. Currently there

are a total of 27 assigned to this Battalion.

(b) EVALUATION: Based upon the vintage of specific items of equipment authorized this unit e.g. Earth Auger, V-18/MTQ and Truck, Pole V-17/MTQ, maintenance requirements are sharply increased. Specifically, the V-18's were manufactured during the period 1952-56. These items are highly essential to the continuation of the current mission.

(c) RECOMMENDATION: That higher headquarters continue to monitor the requisition and assignment of qualified mechanics, and that in view of the age of specialized equipment authorized this Battalion, priorty be given to the assignment of 63B trained personnel to the 40th Signal Battalion.

(d) COMMAND ACTION: A recommended Brigade Authorization Document System Change was forwarded to increase MOS 63B by 3 per line company for the total increase of 9. Trade-off's were offered for this recommended change from 36C MOS.

b. INTELLIGENCE: None

c. OPERATIONS:

(1) Inadequate construction of the Long Binh Manhole and Duct System.

(a) OBSERVATION: The construction method and the test and acceptance procedures used in preparation of the Long Binh Manhole and Duct System were inadequate and incomplete.

(b) EVALUATION: This Battalion was tasked by CTO 40-70 to install underground communication cable, ranging from 25 to 1818 pair, in the Long Binh Manhole and Duct System. Faulty construction methods were used when the underground cable ducts were installed. Specifically, sections of cable duct were placed in trenches without using a connecting collar to connect one section to the next, many ducts were cracked either at time of installation in trenches or during backfilling operations, pull wires were not installed in every duct, and several manholes were placed and concreted below the level of the surrounding terrain allowing them to fill rapidly with rain water. Further, cable ducts installed in the trenches were layed upon loose soil or sand without anticipating the possibility of the soil/sand settling away from the duct, thus causing cracked/crushed cable ducts. Further, mandril's were not pulled through cable ducts prior to acceptance, had this been accomplished, the location of cracked/crushed ducts would have been determined prior to acceptance.

"Stub out's" were not installed at each manhole as required by the prepared cable duct drawings. "Stub out's" provide the capability of bringing cable out of the manhole through an exit other than the manhole cover. As a result of the foregoing discrepancies, this Battalion has spent in excess of 200 mandays engaged in excavating and replacing cracked/crushed cable ducts.

(c) RECOMMENDATION: That future test and acceptance of a cable duct system be thorough and accurate. That specifications include requirements for:

(1) The pulling of mandrils through every duct to insure that ducts are properly cleared and coupled together.

(2) That an adequate size pull wire be installed in each duct.

(3) That the top of all manholes be placed a minimum of four (4) inches above the ground level and that ducts not be floated on sand/soil but encased in concrete.

(d) COMMAND ACTION: Cracked/crushed cable ducts have been replaced in all known locations within the Long Binh Manhole and Duct System. Requests have been forwarded to raise the level of manholes which are below ground level.

2. Pumps and air blowers are required for use during manhole and duct work.

(a) OBSERVATION: Water pumps and air conditioners/air blowers are required during manhole preparation phase and splicing phase of manhole and duct system work. These items of equipment must be available to provide a proper environment for splicer personnel.

(b) EVALUATION: During preparation for PHASE II, Long Binh Manhole and Duct System, it became readily apparent that air conditioning/air blower equipment was required for each manhole to provide assistance in lowering the extreme temperature within the manholes and to remove humidity from the immediate vicinity of the paper insulated cable being installed. Without air conditioning assistance, splicer personnel could not work longer than 10 to 15 minutes without having to leave the manhole because of the extreme temperature. The temperature in the manholes ranges from 100 degrees to 118 degrees. Additionally, as the heavy rains begin, the manholes receive water both from around the manhole cover and through the empty cable ducts, thus leaving the spliced cable vulnerable to water damage. Water pumps are required to remove water from the

manholes so as to prevent cable damage.

(c) RECOMMENDATION: That electrical/power driven air blowers and water pumps be readily available for use when assigned manholes and duct systems projects.

(d) COMMAND ACTION: A change to MTOE 11-27G has been forwarded recommending that air blowers be added. Water pumps are currently authorized this unit by MTOE.

3. Coordination and tasking for cable construction projects.

(a) OBSERVATION: When more than one unit is tasked to work on a cable project, the coordination and construction problems are increased.

(b) EVALUATION: This Battalion was tasked to perform a portion of a cable rehabilitation project at Can Tho. The 52d Signal Battalion was tasked to perform the remainder of the project. Difficulty was encountered because no single agency had overall responsibility for coordinating the efforts of the two units working on the same cables. This coordination was necessary in order to effect joint electrical test to determine the type and location of cable faults. Without joint tests neither unit could determine when, or if, the required 90% reliability had been achieved.

(c) RECOMMENDATION: That units be tasked to perform cable rehabilitation projects in total.

(d) COMMAND ACTION: It is now Battalion policy to perform the entire rehabilitation required on a cable or portion of a cable.

(d) ORGANIZATION: See Inclosure

(e) TRAINING: None

(f) LOGISTICS:

1. Support of Federal Electric Corporation.

(a) OBSERVATION: Sufficient lead time was not given to this Battalion's DSU when required to support FEC.

(b) EVALUATION: 40th Signal Battalion (C) operates a Direct Support Unit (DSU) in support of the companies of this Battalion and other users of cable construction supplies. On approximately 25 February this Battalion was advised of the requirement to provide DSU support to Federal Electric Corporation. On approximately 1 March 1971, the first requisitions were received by the DSU. Based upon time required to obtain PLL listings and order-ship time involved, the 40th Signal Battalion was not sufficiently stocked to fully support both the increased demands of FEC and the remaining active DSU customers.

(c) RECOMMENDATION: That in the event that additional support missions are required of the 40th Signal Battalion (C) DSU, a minimum of 45 days notice be provided to allow for submission of PLL listings by supported unit and to allow for requisition, receipt and stocking items.

(d) COMMAND ACTION: Extensive coordination with 160th Signal Group S-4 and 1st Signal Brigade Logistics Division has been conducted to speed delivery of critical items.

(e) COMMUNICATIONS: None

(h) MATERIAL:

1. Earth Borer Equipment.

(a) OBSERVATION: A new and improved earth auger has been issued to this Battalion in lieu of the V-18/MTQ, FSN 2320-973-4577.

(b) EVALUATION: Earth Auger, FSN 3820-931-4509, has a much greater capability than older models. This recently developed item is mounted on Truck Cargo, 5 ton, M54A1, FSN 2320-055-5265. This unit has many advantages not found on previous models i.e. the auger is powered separately from the prime mover, deeper holes can be bored at an increased rate of speed, the auger unit may be detached from the prime mover in a short period of time, and this item is constructed of heavier components.

(c) RECOMMENDATION: That consideration be given to replacing Earth Borer, V-18/MTQ, FSN 2320-973-4577, with Earth Auger, FSN 3820-931-4509.

(d) COMMAND ACTION: Pending results of extensive field tests which are now being conducted, recommended MTOE changes may be submitted.

2. Tractor, Wheel, DSL DRV, W/Backhoe and Front Loader.

SCCPV-UG-FS-O 22 May 1971

SUBJECT: Operational Report - Lessons Learned for 40th Signal Battalion (C), Period Ending 30 April 1971, RCS CSFOR-65 (R3)

(a) OBSERVATION: The availability of one each per company would be very useful as one of the primary missions of this Battalion is to install buried cable.

(b) EVALUATION: Tractor, WHL, DSL DRV, W/Backhoe and Front Loader provides the capability of excavating in those areas where MTOE authorized entrenching equipment cannot be utilized. Additionally, this item of equipment can be used to fill in excavated areas where use of MTOE authorized Tractor, full tracked, DSL, D-8 equipment would be impractical because of size and/or weight.

(c) RECOMMENDATION: That consideration be given to adding Tractor, Wheel, DSL DRV, W/Backhoe and Front Loader, FSN 2420-900-8538, to MTOE 11-27G.

(d) COMMAND ACTION: Pending results of investigation being conducted by this Battalion and an absolute determination of need, a recommended change to MTOE may be submitted.

(i) OTHER: None

NORMAN L. RUE
LTC, SigC
Commanding

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2 - CG, USARPAC, ATTN: GPOP-DT, APO 96558
3 - CG, USARV, ATTN: AVHGC-DST, APO 96375
1 - CG, USASTRATCOM-PAC, Schofield Barracks, Hawaii, APO 96557
10 - CG, 1st Signal Brigade (USASTRATCOM), ATTN: SCCPV-OP, APO 96385
6 - CO, 160th Signal Group, APO 96491
5 - CO, 40th Signal Battalion (C), APO 96491

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SCCPV-UC-OP-PT (22 May 1971) 1st Ind
SUBJECT: ORLL, 40th Sig Bn, period ending 30 April 1971.

DA, HQ, 160th Signal Group, APO San Francisco 96491 26 May 1971

TO: SEE DISTRIBUTION

1. Subject report is forwarded in accordance with AR 525-15.

2. The following comment applies to para 2a: The shortage of school trained 36E (Cable Splicer) personnel has been a continual problem. Efforts to alleviate this shortage through the use of local training facilities have met with limited success. Since the requirement in RVN has changed from new cable construction to rehabilitation of existing plant, the need for well trained cable splicers has increased. The capability of the Battalion to accomplish its mission has been adversly affected by this continuing shortage.

3. Concur in the Commander's observations, evaluations and recommendations.

JAMES L. JONES
COL, SigC
Commanding

DISTRIBUTION
2- DA, ACSFOR
9- 1st Sig Bde, ATTN: SCCPV-OP

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SCCPV-OP-CC (22 May 71) 2d Ind
SUBJECT: Operational Report - Lessons Learned, Headquarters, 40th Signal Battalion for Period Ending 30 April 1971, RCS CSFOR-65 (R3)

DA, HQ, 1st Signal Brigade (USASTRATCOM), APO 96384 JUN 20 1971

TO: Commanding General, United States Army, Vietnam, ATTN: AVHGC-DST, APO 96375

1. Subject report is forwarded in accordance with AR 525-15.

2. This headquarters has reviewed the report and concurs in it as indorsed with the following comments:

a. Paragraph numbering should be sequenced to provide easy reference and avoid confusion. Example: pg. 7-10, para 2.c.2. thru 2.f.1 should read 2.c.(2) thru 2.f.(1); 2.f.(g) should read 2.g.; 2.f.(h) should read 2.h.; 2.f.(h)1. should read 2.h.(1); 2.f.(h)2. should read 2.h.(2) and 2.f.(h)2.i. should read 2.i.

b. Reference pg. 3, para 1.b., line 3, should read: ".... installed 190,510...."

c. Reference pg. 5, para 2.a.(1)(b), line 8, should read: "..... schooling at the Signal School Southeast Asia #1 and ...."

d. Reference pg. 5, para 2.a.(1)(d), line 1 should read: ".... quotas at SSSEA-1, ..."

e. Reference item, "Inadequate construction of the Long Binh Manhole and Duct System", pg. 6, para 2.c.(1)(c). It is now a standard operating procedure to supervise the actual testing for acceptance. It is required that this test consist as a minimum of pulling a 2" mandril through each duct to insure completeness of the system. Each acceptance report will contain an affidavit from each supervisor that this is witnessed.

FOR THE COMMANDER:

for D. H. BURRIER
CPT, AGC
Asst AG

CF:
Commanding General, U.S. Army Strategic Communications Command, ATTN: SCC-OPS-RT, Ft Huachuca, Arizona 85613
Commanding Officer, 160th Signal Group, APO 96491
Commanding Officer, 40th Signal Battalion, APO 96491

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AVHDO-DO (22 May 71) 3d Ind
SUBJECT: Operational Report-Lessons Learned for 40th Signal Battalion (C), Period Ending 30 April 1971, RCS CSFOR-65 (R3) (U)

Headquarters, United States Army Vietnam, APO San Francisco 96375 22 JUL 1971

THRU: Commanding General, United States Army Strategic Communications Command-Pacific, APO 96557

TO: Commander in Chief, United States Army Pacific, ATTN: GPOP-FD, APO 96558

This Headquarters has reviewed the Operational Report-Lessons Learned for the period ending 30 April 1971 from Headquarters, 40th Signal Battalion and concurs with comments of indorsing headquarters.

FOR THE COMMANDER:

For F. L. HONOWITZ
CPT. AGC.
Assistant Adjutant General

Cy furn:
40th Sig Bn
1st Sig Bde

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SCCP-OP-OOE (22 May 71) 4th Ind
SUBJECT: Operational Report - Lessons Learned for 40th Signal Battalion (C), Period Ending 30 April 1971, RCS CSFOR-65 (R3)

Headquarters, US Army Strategic Communications Command-Pacific, APO San Francisco 96557 17 AUG 1971

THRU: Commander in Chief, United States Army, Pacific, ATTN: GPOP-FD, APO 96558

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

1. Subject report is forwarded in accordance with AR 525-15.

2. This headquarters concurs with the report as indorsed.

FOR THE COMMANDER:

ANN M. RICU
CPT, WAC
Acting Asst AG

CF:
CG, USARV, APO 96375 wo incl
CG, 1st Sig Bde (USASTRATCOM), APO 96384 wo incl
CO, 160th Sig Gp (USASTRATCOM), APO 96491 wo incl
CO, 40th Sig Bn (USASTRATCOM), APO 96491 wo incl

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